

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of	:	HIERTZ, et al.
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Group Art Unit	:	2617
Examiner	:	Yu (Andy) Gu
Attorney Docket No.	:	DE 030227

**APPEAL BRIEF  
On Appeal from Group Art Unit 2617**

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Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed on November 19, 2009 and in response to the final Office Action of August 20, 2009.

## TABLE OF CONTENTS

I.	REAL PARTY IN INTERST .....	3
II.	RELATED APPEALS AND INTERFERENCES.....	3
III.	STATUS OF CLAIMS.....	3
IV.	STATUS OF AMENDMENTS.....	3
V.	SUMMARY OF CLAIMED SUBJECT MATTER.....	4
VI.	GROUND OF REJECTION TO BE REVIEWED ON APPEAL.....	6
VII.	ARGUMENT.....	8
VIII.	CLAIMS APPENDIX.....	23
IX.	EVIDENCE APPENDIX.....	31
X.	RELATED PROCEEDINGS APPENDIX.....	32

## **I. REAL PARTY IN INTEREST**

The real party in interest is Koninklijke Philips Electronics N.V., the assignee of record as indicated at Reel/Frame 107945/0926.

## **II. RELATED APPEALS AND INTERFERENCES**

The Appellants are not aware of any pending appeals, judicial proceedings, or interferences which may be related to, directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

## **III. STATUS OF CLAIMS**

- a) Claims 1-25 are pending at the time of filing the appeal brief.
- b) Claims 1, 17, and 25 are independent.
- c) Claims 1-25 stand rejected and are the subject of this appeal.

## **IV. STATUS OF AMENDMENTS**

The claims listed in section "VIII. Claims Appendix" of this Appeal Brief corresponds to the claims as submitted in the Appellants' amendment filed June 3, 2009. No claim amendments have been submitted following the amendment of June 3, 2009, nor are any amendments pending.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER<sup>1</sup>**

The claimed invention, as recited in claim 1, is directed to a method of decentralized medium access control in a communications network consisting of a plurality of stations (page 2, lines 5-6), wherein a sending station transmits a reservation request for a future transmission to an intended receiving station (page 2, lines 7-8), the intended receiving station being in a reception range of the sending station (page 2, line 8), the method comprising: transmitting the reservation request signaling reservation information including a starting point and duration of the future transmission, thereby defining a time period of the future transmission (page 2, lines 9-11), and, in case of a multi-channel system, further including a frequency or code of the channel of the future transmission (page 2, lines 11-12), thereby establishing a reservation (page 2, line 12 and page 6, lines 3-8), and overhearing the reservation request by stations active in the reception range, such that stations other than the intended receiving station store the reservation information locally and defer from medium access during the time period and on the channel of the future transmission (page 2, lines 12-16).

The claimed invention, as recited in claim 17, is directed to a communications network consisting of a plurality of stations (page 2, line 6), comprising: a sending station which transmits a reservation request for a future transmission (page 2, line 7); an intended receiving station, being in a reception range of the sending station, for receiving the reservation request to

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<sup>1</sup> It should be explicitly noted that it is not the Appellants' intention that the currently claimed or described embodiments be limited to operation within the illustrative embodiments described below beyond what is required by the claim language. Further description of the illustrative embodiments are provided indicating portions of the claims which cover the illustrative embodiments merely for compliance with requirements of this appeal without intending to read any further interpreted limitations into the claims as presented.

establish a reservation (page 2, lines 7-9), wherein the reservation request signaling reservation information includes a starting point and duration of the transmission, thereby defining a time period of the future transmission (page 2, lines 9-11), and, in case of a multi-channel system, frequency or code of the channel of the future transmission (page 2, lines 11-12); and stations, other than the intended receiving station, active in the reception range which overhear the reservation request, for storing the reservation information locally and deferring from medium access during the time period and on the channel of the future transmission (page 2, lines 12-16).

The claimed invention, as recited in claim 25, is directed to a station which transmits a reservation request for a future transmission to an intended receiving station (page 2, lines 7-8), thereby establishing a reservation (page 2, line 12 and page 6, lines 3-8), the reservation request comprising signaling reservation information including a starting point and duration of the transmission, defining a time period of the future transmission (page 2, lines 9-11), and, in case of a multi-channel system, frequency or code of the channel of the future transmission (page 2, lines 11-12).

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

- A. Whether claims 1-16 and 25 are properly rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.
- B. Whether claims 1-4, 8-11, 13, and 25 are properly rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehill et al. (US Patent No. 6,404,756, hereinafter referred to as “Whitehill”) in view of Giles et al. (US Patent No. 5,231,634, hereinafter “Giles”) and further in view of He (US Patent No. 5,734,898, hereinafter referred to as “He”).
- C. Whether claims 17 and 18 are properly rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehill in view of Giles.
- D. Whether claims 5, 6, and 12 are properly rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehill in view of Giles and He, and further in view of Matsunaga et al. (US Patent No. 6,704,932, hereinafter referred to as “Matsunaga”).
- E. Whether claims 19 and 20 are properly rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehill in view of Giles and further in view of Matsunaga.
- F. Whether claim 7 is properly rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehill in view of Giles and He, and further in view of Shuffer et al. (US Patent No. 5,960,001, hereinafter referred to as “Shuffer”).
- G. Whether claim 21 is properly rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehill in view of Giles, and further in view of Shuffer.
- H. Whether claims 14 and 15 are properly rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehill in view of Giles and He, and further in view of Han et al. (US Patent No. 5,633,911, hereinafter referred to as “Han”).

- I. Whether claims 22 and 23 are properly rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehill in view of Giles, and further in view of Han.
- J. Whether claim 16 is properly rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehill in view of Giles and He, and further in view of White et al. (US Patent No. 7,433,691, hereinafter referred to as “White”).
- K. Whether claim 24 is properly rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehill in view of Giles, and further in view of White.

## **VII. ARGUMENT**

The Appellants respectfully traverse the rejections in accordance with the detailed arguments set forth below.

**A. Claims 1-16 and 25 are not properly rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.**

### **A1: Claim 1**

On pages 2-3 of the Office Action, the Examiner submits that claim 1 contains new matter because the limitation “thereby establishing a reservation” is allegedly not found in the original specification. The Appellants respectfully point out that that this limitation is found in the original specification at least at page 2, line 12 and at page 6, lines 3-8.

The Examiner on page 2 of the Office Action submits that the instant specification recites “so establishing a reservation,” meaning only that a reservation request has been made. The Appellants respectfully point out that page 2, line 12 of the specification recites “so establishing a reservation” (emphasis added). The specification on page 2, line 12 clearly recites that a reservation is established. Furthermore, page 6, lines 9-12, a station when receiving a reservation request or overhearing a reservation request will update its internal reservation request table. The reservation request table may be transmitted in a beacon frame (page 6, lines 29-32) and using the reservation information every station can predict transmissions from neighboring stations (page 7, lines 3-6). Accordingly, the Appellants respectfully submit that the rejection to claim 1 under 35 U.S.C. 112, first paragraph, is unfounded and should be reversed.

The Examiner on page 2 of the Office Action alleges that the specification does not support establishing a reservation in the transmitting step. However, the following recitation from page 5, line 32 – page 6, lines 8 of the specification, proves otherwise:



*. . .station A transmits a frame to station B. The data frame also includes a reservation request. . . the receiving station will optionally repeat the reservation information in its acknowledgement message for the purpose of dealing with the hidden station problem. This acknowledgement message can be received by stations which are hidden to the sender and therefore might interfere during the reserved duration as they are in the reception range of the receiver but out of the reception range of the sending station. (Emphasis added).*

In other words, the reservation has been established upon station A transmitting a frame to station B. The optional repeat of the reservation in the acknowledgement message does not “finalize” the reservation, as implied by the Examiner, because the duration has already been reserved. Instead, the purpose of the acknowledge message is to deal with the potential problem with the hidden station, as the optional acknowledgement message can be received by stations which are hidden to the sender so to reduce or eliminate interference *during the reserved duration*. As such, the Appellants respectfully submit that the limitation “thereby establishing a reservation” does not constitute new matter because the limitation is supported in the original specification. Accordingly, the Appellants respectfully submit that the rejection to claim 1 under 35 U.S.C. 112, first paragraph, is unfounded and should be reversed.

### **A2: Claims 2-16**

Claims 2-16 ultimately depend from claim 1. Each dependent claim incorporates all of the features of the allowable parent claim. For each dependent claim the Appellants essentially repeat the above arguments from claim 1 and apply them to each dependent claim. As such, the Appellants respectfully submit that claims 2-16 are supported and that the rejection under 35 U.S.C. 112, first paragraph, is unfounded and should be reversed.

### **A3: Claim 25**

Independent claim 25, is directed to a station which transmits a reservation request for a future transmission to an intended receiving station, while claim 1 is directed to a method of decentralized medium access control in a communications network.

Claim 25 recites in part: “thereby establishing a reservation.”

The Office action uses substantially the same arguments as set forth with regard to claim 1, alleging that claim 25 contains new matter because the limitation “thereby establishing a reservation” is allegedly not found in the original specification. The Appellants essentially repeat the above arguments for claim 1 and apply them to claim 25. Accordingly, the Appellants respectfully submit that the rejection to claim 25 under 35 U.S.C. 112, first paragraph, is unfounded and should be reversed.

**B. Claims 1-4, 8-11, 13, and 25 are not properly rejected under 35 U.S.C. 103(a) as unpatentable over Whitehill in view of Giles and further in view of He.**

**B1: Claim 1**

It is respectfully submitted that the Examiner has failed to establish a prima facie case of obviousness. The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. 103 is set forth in MPEP § 706.02(j):

“To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.”  
*Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

If the above-identified criteria are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention as recited in claim 1 is

distinguishable over the cited references and the rejections should be reversed.

The Appellants' claim 1 defines a method of decentralized medium access control in a communications network consisting of a plurality of stations, wherein a sending station transmits a reservation request for a future transmission to an intended receiving station, the intended receiving station being in a reception range of the sending station, and requires:

transmitting the reservation request signaling reservation information including a starting point and duration of the future transmission, thereby defining a time period of the future transmission, and, in case of a multi-channel system, further including a frequency or code of the channel of the future transmission, thereby establishing a reservation, and overhearing the reservation request by stations active in the reception range, such that stations other than the intended receiving station store the reservation information locally and defer from medium access during the time period and on the channel of the future transmission.

The final Office action, starting at the bottom of page 3 through the top of page 4, alleges that Whitehill at column 5 lines 21-28 discloses overhearing the reservation request by stations active in the reception range, such that stations other than the intended receiving station store the reservation information locally and defer from medium access during the time period and on the channel of the future transmission. The Appellants respectfully disagree because Whitehill discloses that the nodes store the channel reservations that have been accomplished (col. 5, lines 21-28), which according to Whitehill requires an RTS/CTS exchange (col. 6, lines 8-29). In Whitehill, as explained below, the RTS (request) does not establish the reservation. In Whitehill the RTS/CTS exchange establishes the reservation. Therefore, one ordinarily skilled in the art would not consider that the nodes store the channel reservation based on the request, but only after the RTS/CTS exchange.

In contrast, appellants' claimed invention recites overhearing the reservation request. Therefore, Whitehill is different from the claimed invention and does not store the reservation information locally based on the reservation request (RTS), but only after the RTS/CTS exchange.

Whitehill, at column 6 lines 8-29, recites, when node A wishes to transmit to node B, node A sends an Request to Send (RTS) message. In Whitehill node B replies to node A with a CTS message, then the node A transmits the information message. As pointed out by Whitehill only after receiving the CTS message may the information be transmitted by a node (see also col. 6, lines 25-29). As is clear throughout Whitehill the reservation is based on a RTS/CTS exchange (also see col. 6, lines 56-60; col. 8, lines 61 to col. 9, line 20; col. 11, lines 17-48).

Whitehill does not establish a reservation until after the source modem transmits the RTS message, and receives or overhears the CTS message. As such, Whitehill does not teach or even suggest overhearing the reservation request by stations active in the reception range, such that stations other than the intended receiving station store the reservation information locally and defer from medium access during the time period and on the channel of the future transmission. In contrast, the nodes of Whitehill store information based on an accomplished reservation, meaning that a CTS reply message has been sent. Therefore, Whitehill, which is relied upon as teaching the above mentioned elements of claim 1, does not disclose or even suggest these elements. The Office action cites Giles and He as allegedly disclosing other aspects of claim 1. However, neither Giles nor He, separately or in combination, cure the deficiencies of Whitehill with respect to the above elements of claim 1.

Furthermore, the Office action on page 4 concedes that Whitehill “does not specifically disclose *thereby establishing a reservation. . .*”

The Office action, starting at the middle of page 4 through the top of page 5, alleges that He at col. 9, lines 42-52 and col. 1, lines 36-44 discloses a communication protocol wherein a request for update is sent to a destination station by a source station, wherein the source station proceeds to the next process without needing a response message from the destination station. The Office alleges that it would have been obvious to one of ordinary skill to modify Whitehill by removing the CTS message in the reservation creation process for the purpose of further alleviating traffic congestion. The Appellants have considered He in its entirety and respectfully asserts that He is non-analogous art and therefore an invalid reference under 35 U.S.C. 103(a).

The Office action points to He at col. 9, lines 42-52 as discussing the disadvantages of a request-acknowledgement protocol, whereby the elimination of the acknowledgement step can reduce traffic congestion. He and the claimed invention are directed to different fields of endeavor.

MPEP 2141.01(a) I states:

The examiner must determine what is “analogous prior art” for the purpose of analyzing the obviousness of the subject matter at issue. “In order to rely on a reference as a basis for rejection of an applicant’s invention, the reference must either be in the field of applicant’s endeavor or, if not, then reasonably pertinent to the particular problem with which the inventor was concerned.” *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

He relates to a client-server computer system and a method for updating the client, server, and objects, where cache updates are made asynchronously between a client and a server in a client-server system while the integrity of objects is being maintained, thus avoiding blocked processing at the client and reducing load on the communication lines (Title, abstract). The cited

portions of He disclose a method in a computer system for a client to perform a cache update to a server upon receiving an update request from the client. Such cache update is performed without waiting for the server to respond. He is not at all related to communication coordination functions and decentralized medium access control. For example claim 1 is directed to: a method of decentralized medium access control in a communications network consisting of a plurality of stations.

Furthermore, He at column 1 lines 42-52 admits that in a method for updating cache in a client-server computer system, the synchronous method's requirement of sending responses adds to congestion, while the asynchronous method does not, "it is difficult for the (asynchronous) method to maintain the integrity of objects in the system. Thus it has not been easy to employ the asynchronous method in client server systems which perform processing by transactions." As such, the Appellants respectfully submit that one of ordinary skill in the art, when faced with the problem of decentralized medium access control in a communications network, would not be taught by He to modify Whitehill, as alleged by the Examiner. As noted above, since He admits that it would be difficult for the asynchronous method to maintain the integrity of the computer system, it would not be obvious to one of ordinary skill in the art to rely on He's solution for reducing traffic in a client-server computer network as a pertinent solution for addressing the problems of collision avoidance and decentralized medium access control. As such the Appellants respectfully submit that He is not analogous prior art, and therefore, the rejection should be reversed.

Because Whitehill, Giles and He, separately or in combination, do not disclose or even suggest all elements in claim 1 and because He is non-analogous art, the Appellants respectfully submit that the Office has not presented a prima facie case of obviousness and as such, the

rejection to independent claim 1 under 35 U.S.C. 103(a), is unfounded and should be reversed. As such, the Appellants respectfully submit that claim 1 is in condition for allowance.

### **B2. Claims 2-4 and 8-13**

Claims 2-4 and 8-13 ultimately depend from claim 1. Each dependent claim incorporates all of the features of the allowable base claim 1. Furthermore, each dependent claim includes additional distinguishing features. For each dependent claim the Appellants essentially repeat the above arguments from claim 1 and apply them to each dependent claim. As such, the Appellants respectfully submit that claims 2-4 and 8-13 are allowable at least by virtue of their dependency on an allowable base claim and that the rejection under 35 U.S.C. 103(a), is unfounded and should be reversed. Accordingly, the Appellants respectfully submit that claims 2-4 and 8-13 are in condition for allowance.

### **B3. Claim 25**

Independent claim 25, is different from claim 1, however, claim 25 recites in part: “a reservation request for a future transmission to an intended receiving station, thereby establishing a reservation.”

The Office action uses substantially the same arguments as set forth with regard to claim 1, alleging that Whitehill discloses the above-mentioned aspects of claim 25. The Appellants essentially repeat the above relevant arguments for claim 1 and apply them to claim 25. As such, the Appellants submit that the Office has not presented a prima facie case of obviousness and the rejection to independent claim 25 under 35 U.S.C. 103(a), is unfounded and should be reversed. Accordingly, the Appellants respectfully submit that claim 25 is in condition for allowance.

**C. Claims 17 and 18 are not properly rejected under 35 U.S.C. 103(a) as unpatentable over Whitehill in view of Giles.**

**C1. Claim 17**

Independent claim 17, although different from claim 1, includes several similar distinguishing features as discussed above with respect to claim 1. For example, claim 17 is directed to a communications network, and recites in part: “an intended receiving station, being in a reception range of the sending station, for receiving the reservation request to establish a reservation,” and “stations, other than the intended receiving station, active in the reception range which overhear the reservation request, for storing the reservation information locally and deferring from medium access during the time period and on the channel of the future transmission.”

The Office action uses substantially the same arguments as set forth with regard to claim 1, alleging that Whitehill discloses the above-mentioned aspects of claim 17. The Appellants essentially repeat the above relevant arguments for claim 1 and apply them to claim 17. Giles does not cure the deficiencies of Whitehill with respect to claim 17. As such, the Appellants submit that the Office has not presented a prima facie case of obviousness and the rejection to independent claim 17 under 35 U.S.C. 103(a), is unfounded and should be reversed. Accordingly, the Appellants respectfully submit that claim 17 is in condition for allowance.

**C2. Claim 18**

Claim 18 depends from claim 17 and incorporates all of the features of the allowable parent claim. Furthermore, dependent claim 18 includes additional distinguishing features. For claim 18 the Appellants essentially repeat the above arguments from claim 17 and apply them to



claim 18. As such, the Appellants respectfully submit that claim 18 is allowable at least by virtue of its dependency on an allowable base claim and that the rejection under 35 U.S.C. 103(a), is unfounded and should be reversed. Accordingly, the Appellants respectfully submit that claim 18 is in condition for allowance.

**D. Claims 5, 6, and 12 are not properly rejected under 35 U.S.C. 103(a) as unpatentable over Whitehill in view of Giles and He, and further in view of Matsunaga.**

**D1. Claims 5, 6, and 12**

Claims 5, 6, and 12 depend from claim 1. Each dependent claim incorporates all of the features of claim 1. Furthermore, each dependent claim includes additional distinguishing features. For each dependent claim the Appellants repeat the above arguments from claim 1 and apply them to each dependent claim. Matsunaga does not cure the deficiencies of Whitehill, Giles, or He with respect to claim 1. As such, the Appellants respectfully submit that claims 5, 6, and 12 are allowable at least by virtue of their dependency on an allowable base claim and that the rejection under 35 U.S.C. 103(a), is unfounded and should be reversed. Accordingly, the Appellants respectfully submit that claims 5, 6, and 12 are in condition for allowance.

**E. Claims 19 and 20 are not properly rejected under 35 U.S.C. 103(a) as unpatentable over Whitehill in view of Giles and further in view of Matsunaga.**

**E1: Claims 19 and 20**

Claims 19 and 20 depend from claim 17 and incorporate all of the features of claim 17. Furthermore, each dependent claim includes additional distinguishing features. For each dependent claim the Appellants essentially repeat the above arguments from claim 17 and apply

them to each dependent claim. Matsunaga does not cure the deficiencies of Whitehill or Giles with respect to claim 17. As such, the Appellants respectfully submit that claims 19 and 20 are allowable at least by virtue of their dependency on an allowable base claim and that the rejection under 35 U.S.C. 103(a), is unfounded and should be reversed. Accordingly, the Appellants respectfully submit that claims 19 and 20 are in condition for allowance.

**F. Claim 7 is not properly rejected under 35 U.S.C. 103(a) as unpatentable over Whitehill in view of Giles and He, and further in view of Shuffer.**

**F1. Claim 7**

Claim 7 depends from claim 1 and incorporates all of the features of claim 1. Furthermore, claim 7 includes additional distinguishing features. For dependent claim 7 the Appellants repeat the above arguments from claim 1 and apply them to claim 7. Shuffer does not cure the deficiencies of Whitehill, Giles, or He with respect to claim 1. As such, the Appellants respectfully submit that claim 7 is allowable at least by virtue of its dependency on an allowable base claim and that the rejection under 35 U.S.C. 103(a), is unfounded and should be reversed. Accordingly, the Appellants respectfully submit that claim 7 is in condition for allowance.

**G. Claim 21 is not properly rejected under 35 U.S.C. 103(a) as unpatentable over Whitehill in view of Giles, and further in view of Shuffer.**

**G1. Claim 21**

Claim 21 depends from claim 17 and incorporates all of the features of the allowable claim 17. Furthermore, claim 21 includes additional distinguishing features. For dependent claim 21 the Appellants repeat the above arguments from claim 17 and apply them to claim 21.

Shuffer does not cure the deficiencies of Whitehill or Giles with respect to claim 17. As such, the Appellants respectfully submit that claim 21 is allowable at least by virtue of its dependency on an allowable base claim and that the rejection under 35 U.S.C. 103(a), is unfounded and should be reversed. Accordingly, the Appellants respectfully submit that claim 21 is in condition for allowance.

**H. Claims 14 and 15 are not properly rejected under 35 U.S.C. 103(a) as unpatentable over Whitehill, Giles and He, and further in view of Han.**

**H1. Claims 14 and 15**

Claims 14 and 15 depend from claim 1. Each dependent claim incorporates all of the features of claim 1. Furthermore, each dependent claim includes additional distinguishing features. For each dependent claim the Appellants essentially repeat the above arguments from claim 1 and apply them to each dependent claim. Han does not cure the deficiencies of Whitehill, Giles, or He with respect to claim 1. As such, the Appellants respectfully submit that claims 14 and 15 are allowable at least by virtue of their dependency on an allowable base claim and that the rejection under 35 U.S.C. 103(a), is unfounded and should be reversed. Accordingly, the Appellants respectfully submit that claims 14 and 15 are in condition for allowance.

**I. Claims 22 and 23 are not properly rejected under 35 U.S.C. 103(a) as unpatentable over Whitehill in view of Giles, and further in view of Han.**

**II: Claims 22 and 23**

Claims 22 and 23 depend from claim 17 and incorporates all of the features of the

allowable claim 17. Furthermore, each dependent claim includes additional distinguishing features. For each dependent claim the Appellants essentially repeat the above arguments from claim 17 and apply them to each dependent claim. Han does not cure the deficiencies of Whitehill or Giles with respect to claim 17. As such, the Appellants respectfully submit that claims 22 and 23 are allowable at least by virtue of their dependency on an allowable base claim and that the rejection under 35 U.S.C. 103(a), is unfounded and should be reversed. Accordingly, the Appellants respectfully submit that claims 22 and 23 are in condition for allowance.

**J. Claim 16 is not properly rejected under 35 U.S.C. 103(a) as unpatentable over Whitehill, Giles and He, and further in view of White.**

**J1. Claim 16**

Claim 16 depends from claim 1 and incorporates all of the features of claim 1. Furthermore, claim 16 includes additional distinguishing features. For claim 16 the Appellants repeat the above arguments from claim 1 and apply them to claim 16. White does not cure the deficiencies of Whitehill, Giles, or He with respect to claim 1. As such, the Appellants respectfully submit that claim 16 is allowable at least by virtue of its dependency on an allowable base claim and that the rejection under 35 U.S.C. 103(a), is unfounded and should be reversed. Accordingly, the Appellants respectfully submit that claim 16 is in condition for allowance.

**K. Claim 24 is not properly rejected under 35 U.S.C. 103(a) as being unpatentable over Whitehill, Giles, and White.**

**K1. Claim 24**

Claim 24 depends from claim 17 and incorporates all of the features of claim 17. Furthermore, claim 24 includes additional distinguishing features. For claim 24 the Appellants repeat the above arguments from claim 17 and apply them to claim 24. White does not cure the deficiencies of Whitehill or Giles with respect to claim 17. As such, the Appellants respectfully submit that claim 24 is allowable at least by virtue of its dependency on an allowable base claim and that the rejection under 35 U.S.C. 103(a), is unfounded and should be reversed. Accordingly, the Appellants respectfully submit that claim 24 is in condition for allowance.

### **CONCLUSION**

In light of the above, the Appellants respectfully submit that the rejection of claims 1-25 is in error, legally and factually, and must be reversed.

Respectfully submitted,

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## **VIII. CLAIMS APPENDIX**

1. (Previously presented) A method of decentralized medium access control in a communications network consisting of a plurality of stations, wherein a sending station transmits a reservation request for a future transmission to an intended receiving station, the intended receiving station being in a reception range of the sending station, the method comprising:

transmitting the reservation request signaling reservation information including a starting point and duration of the future transmission, thereby defining a time period of the future transmission, and, in case of a multi-channel system, further including a frequency or code of the channel of the future transmission, thereby establishing a reservation, and

overhearing the reservation request by stations active in the reception range, such that stations other than the intended receiving station store the reservation information locally and defer from medium access during the time period and on the channel of the future transmission.

2. (Previously presented) The method of claim 1, wherein the intended receiving station acknowledges the reservation request by returning an acknowledgement message repeating the reservation information; and stations other than the intended receiving station active in the reception range for transmissions of the intended receiving station perform the actions of storing the reservation information locally and defer from medium access during the time period and on the channel of the future transmission upon overhearing the acknowledgement message.

3. (Previously presented) The method of claim 1, wherein the reservation request is transmitted piggy-back to a data packet in a frame or in another signaling frame.

4. (Previously presented) The method of claim 3, wherein an acknowledgement message is transmitted piggy-back in an acknowledgement frame of the data packet or another data packet.

5. (Previously presented) The method of claim 1, wherein the reservation request includes information on the priority or priority class of the future transmission, the priority information being used in that active stations in the reception range of the sending station replace an existing reservation information stored for the time period by new reservation information of a most recently received reservation request, if the existing reservation request has a lower priority than the most recently received reservation request; and the station that has been previously allocated the channel for the time period withdraws or delays its future transmission, if the most recently received reservation has a higher priority.

6. (Previously presented) The method of claim 1, wherein an acknowledgement message includes information on the priority or priority class of the future transmission, the priority information being used in that active stations in the reception range of the intended receiving station replace an existing reservation information stored for the time period by new reservation information of a most recently received reservation request,

if the existing reservation request has a lower priority than the most recently received reservation request; and

that station that has been previously allocated the channel for the time period withdraws or delays its future transmission, if the most recently received reservation has a higher priority.

7. (Previously presented) The method of claim 1, wherein several periodic transmissions are signaled by a single reservation request and a time period derived from reservation information of a reservation request of a first future transmission being interpreted as a period also of the following future transmissions, and stations active in the reception range overhear the reservation request and stations other than the intended receiving station store the reservation information locally and defer from medium access during all signaled time periods on all respective channels of the future transmissions.

8. (Previously presented) The method of claim 1, wherein the signaled starting point of the future transmission is defined relative to a specific point in time associated with the reservation request message so that no global synchronization of clocks is required.

9. (Previously presented) The method of claim 1, wherein a specific point in time, which serves as reference point for the definition of the starting time of the future transmission, is defined relative to the beginning of the reservation request message and signaled inside the reservation request message.

10. (Previously presented) The method of claim 2, wherein the starting point of the future transmission signaled in the acknowledgement message is defined relative to the beginning or end of the sending time or the beginning or end of the time slot as a time base of the acknowledgement message and adapting starting point information from the sending station to the time base of the acknowledgement message.



11. (Original) The method of claim 1, wherein collisions of reservation requests are resolved by a collision resolution mechanism.
12. (Original) The method of claim 1, wherein a reservation request of shorter duration of transmission replaces an existing reservation of longer duration of transmission.
13. (Original) The method of claim 1, wherein reservation information of a most recent reservation request replaces an existing reservation if the most recent reservation request has an earlier due time than the existing information.
14. (Previously presented) The method of claim 1, wherein the sending station transmits a revocation message to the intended receiving station for the purpose of deleting one or several of its reservation requests; and stations active in the reception range for transmissions of the sending station overhear the revocation message and stations other than the intended receiving station locally delete the corresponding reservation information.
15. (Previously presented) The method of claim 1, wherein the intended receiving station acknowledges the revocation message by returning a message repeating the revocation information; and stations other than the intended receiving station active in the reception range for transmissions of the intended receiving station perform the actions of locally deleting the reservation information corresponding to the revocation information.

16. (Previously presented) The method of claim 1, wherein a station broadcasts a copy of its locally stored reservation information; and stations active in the reception range for transmissions of the station compare the received reservation information with their locally stored information and add missing reservations to their locally stored reservation information.

17. (Previously presented) A communications network consisting of a plurality of stations, comprising:

- a sending station which transmits a reservation request for a future transmission;
- an intended receiving station, being in a reception range of the sending station, for receiving the reservation request to establish a reservation, wherein the reservation request signaling reservation information includes a starting point and duration of the transmission, thereby defining a time period of the future transmission, and, in case of a multi-channel system, frequency or code of the channel of the future transmission; and

- stations, other than the intended receiving station, active in the reception range which overhear the reservation request, for storing the reservation information locally and deferring from medium access during the time period and on the channel of the future transmission.

18. (Previously presented) The communications network of claim 17, wherein the intended receiving station acknowledges the reservation request by returning an acknowledgement message repeating the reservation information; and stations other than the intended receiving station active in the reception range for transmissions of the intended receiving station perform the actions of storing the reservation information locally and defer from medium access during

the time period and on the channel of the future transmission upon overhearing the acknowledgement message.

19. (Previously presented) The communications network of claim 17, wherein the reservation request includes information on the priority or priority class of the future transmission, the priority information being used in that active stations in the reception range of the sending station replace an existing reservation information stored for the time period by new reservation information of a most recently received reservation request, if the existing reservation request has a lower priority than the most recently received reservation request; and the station that has been previously allocated the channel for the time period withdraws or delays its future transmission, if the most recently received reservation has a higher priority.

20. (Previously presented) The communications network of claim 17, wherein an acknowledgement message includes information on the priority or priority class of the future transmission, the priority information being used in that active stations in the reception range of the intended receiving station replace an existing reservation information stored for the time period by new reservation information of a most recently received reservation request, if the existing reservation request has a lower priority than the most recently received reservation request; and that station that has been previously allocated the channel for the time period withdraws or delays its future transmission, if the most recently received reservation has a higher priority.

21. (Previously presented) The communications network of claim 17, wherein several periodic transmissions are signaled by a single reservation request wherein a time period derived from reservation information of a reservation request of a first future transmission being interpreted as period also of the following future transmissions, and stations active in the reception range overhear the reservation request and stations other than the intended receiving station perform the actions of storing the reservation information locally and defer from medium access during all signaled time periods on all respective channels of the future transmissions.

22. (Previously presented) The communications network of claim 17, wherein the sending station transmits a revocation message to the intended receiving station for the purpose of deleting one or several of its reservation requests; and stations active in the reception range for transmissions of the sending station overhear the revocation message and stations other than the intended receiving station locally delete the corresponding reservation information.

23. (Previously presented) The communications network of claim 17, wherein the intended receiving station acknowledges the revocation message by returning a message repeating the revocation information; and stations other than the intended receiving station active in the reception range for transmissions of the intended receiving station perform the actions of locally deleting the reservation information corresponding to the revocation information.

24. (Previously presented) The communications network of claim 17, wherein a station broadcasts a copy of its locally stored reservation information; and stations active in the reception range for transmissions of the station compare the received reservation information

with their locally stored information and add missing reservations to their locally stored reservation information.

25. (Previously presented) A station which transmits a reservation request for a future transmission to an intended receiving station, thereby establishing a reservation, the reservation request comprising signaling reservation information including a starting point and duration of the transmission, defining a time period of the future transmission, and, in case of a multi-channel system, frequency or code of the channel of the future transmission.

## **IX. EVIDENCE APPENDIX**

No evidence has been submitted pursuant to §§ 1.130, 1.131, or 1.132 of this title nor any other evidence entered by the examiner and relied upon by the Appellants in the appeal.

**X. RELATED PROCEEDINGS APPENDIX**

The Appellants are not aware of any appeals or interferences related to the present application.